

REMARKS

This Amendment is in response to the Office Action dated November 23, 2010. In the office action, the drawings were objected to, and claims 8 and 10-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Owen (U.S. Patent 4,817,787) in view of DE 32 26 744, and further in view of Yabe et al. (U.S. Patent 5,526,928, "Yabe").

In the present amendment, claims 1-7 and 19 were previously withdrawn from consideration. Claim 9 was previously cancelled without prejudice or disclaimer thereof. Claims 15 and 16 are currently cancelled, without prejudice or disclaimer thereof. Claims 8, 11-13, 17 and 18 are amended to more clearly recite the claimed invention.

At entry of this paper, claims 8, 10-14, 17 and 18 will be pending for further consideration and examination in the application. All rejections are traversed, in so far as the rejections are applicable to the present claims. Reconsideration and allowance of this application, as amended, is respectfully requested. The Applicants also note that the corresponding EPO Application has been found to be allowable and has issued as European Patent EP 1 620 696 B1.

By the present amendment, claims 1-7 and 19 remain withdrawn from consideration. The applicants note that claim 8 is a linking claim to claim 1-7, because claim 1 depends from claim 8. Moreover, the claims share a same special technical feature, i.e., x-ray examination of the detonating cord in its packaging prior to shipment. Therefore, claims 1-7 and 19 should be examined, given that claim 8 is allowable as discussed in the following paragraphs.

RE: DRAWINGS

In the office action, the drawings were objected to under 37 CFR § 1.83(a), for allegedly not showing every feature of the invention specified in the claims.

According to the objection, the “spacing cord” recited in previously presented claim 16 (and currently recited in claim 8) was allegedly not shown in the Figures. The applicants traverse this objection.

Page 3, lines 4-5 of the originally filed specification, which corresponds to paragraph [0014] of the application’s U.S. PG-PUB 2007/0170074, discloses the following: “In FIG. 2, the space is produced by a spacing cord 8 extending in parallel.” Therefore, the “spacing cord” recited in the currently pending claims is shown in the Figures, and therefore the objection to the drawings should be withdrawn.

RE: 35 U.S.C. § 103(a) Rejection

In the office action, claims 8 and 10-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Owen (U.S. Patent 4,817,787) in view of DE 32 26 744, and further in view of Yabe et al. (U.S. Patent 5,526,928, “Yabe”).

In regards to independent claim 8, claim 8 has been amended, *inter alia*, to recite features from currently cancelled claims 15 and 16, and to more clearly recite method steps.

In regards to dependent claim 11, it has been amended to recite a method step. In regards to dependent claim 12, it has been amended to recite a “wherein” clause of a method step. In regards to dependent claims 13, 17, and 18, these claims have been amended to change the claim from which they depend.

In regards to the rejection of claim 8, none of Owen, DE 32 26 744, or Yabe, either individually or in combination, disclose, suggest, or otherwise render obvious the features recited in claim 8 of “winding a detonating cord in a single plane as a flat spiral, wherein a space separating at least two individual laps of the flat spiral is produced by a spacing cord extending in parallel to the detonating cord, and wherein the thickness of the spacing cord corresponds to the space.”

More specifically, none of Owen, DE 32 26 744, or Yabe, either individually or in combination, disclose, suggest, or otherwise render obvious the feature in claim 8 of “wherein a space separating at least two individual laps of the flat spiral is produced by a spacing cord extending in parallel to the detonating cord, and wherein the thickness of the spacing cord corresponds to the space.”

In the office action, no specific rejection of previously presented (currently cancelled) claim 15 was provided, but the rejection of claims 8 and 10-18 relied on Yabe for rejecting the feature of a detonating cord wound as a flat spiral. The rejection states that “[a] difference between the claimed method and Owen also resides in the detonating cord wound as a flat spiral. Yabe et al discloses a package for packaging a tubular endoscope where the tube is spirally wound on a mounting plate 26, note figures 10a, 10b, 11. The spiral winding avoids the problem associated with a large receiving space for endoscopes, col.4, lines 16-18. In view of Yabe et al, it would have been obvious to one of ordinary skill in the art to modify the assembly of Owen by spirally winding the detonating cord on the base for the reason of reducing the space required for the detonating cord.”

However, Yabe is directed to packaging for endoscopes, not to the packaging of detonating cords, and therefore is non-analogous art. It would not have been obvious for one of ordinary skill in the art attempting to solve the problem addressed

by the present invention, at the time the invention was made, to search the endoscope packaging art for a possible solution to the problem.

In particular, the Yabe reference does not address problems unique to detonating cords, such as “misfiring”. In regards to “misfiring”, page 3, lines 1-5 of the originally filed specification, which corresponds to paragraph [0014] of the application’s U.S. PG-PUB 2007/0170074, discloses the following (emphasis added): “The individual laps of the spirally wound detonating cord 1 are arranged at a given spacing from one another, so that, in the event of misfiring of the detonating cord 1, the adjacent lap is destroyed without crossover firing taking place.” Endoscopes do not present similar risks. Therefore the Yabe reference is non-analogous, and the rejection, should be withdrawn.

Moreover, none of Owen, DE 32 26 744, or Yabe, either individually or in combination, disclose, suggest, or otherwise render obvious the feature in claim 8 (emphasis added) of “wherein a space separating at least two individual laps of the flat spiral is produced by a spacing cord extending in parallel to the detonating cord, and wherein the thickness of the spacing cord corresponds to the space.”

In the office action, the rejection of previously presented (currently cancelled) claim 16 stated that “it is not seen how the individuals are produced ... further limits the method of x-raying the package,” without referring to any of the cited references, and without alleging that any of the cited references discloses, suggests, or otherwise renders obvious the recited feature.

In addition, claim 8 has been amended to more clearly indicate how the feature previously recited in claim 16 applies to claim that has been amended to be directed to “[a] method of creating and examining a packaging of a detonating cord.”

Therefore, amended claim 8 recites features not disclosed, suggested, or otherwise rendered obvious by the cited art, and the rejection of claim 8 should be withdrawn.

Further in regards to the rejection of claim 8, none of Owen, DE 32 26 744, or Yabe, either individually or in combination, disclose, suggest, or otherwise render obvious the features recited in claim 8 of (emphasis added) “subjecting the detonating cord to X-ray examination in its packaging prior to shipping, without unwinding the detonating cord, thereby revealing when the detonating cord contains a defect.”

According to the Examiner’s admission in pages 3 and 4 of the Office Action, “[t]he difference between the claimed subject matter,” on the one hand, and the Owen reference on the other hand, is that “there is no disclosure of X-ray examination of the detonating cord and its packaging” in Owen.

In order to remedy this defect in Owen, the Examiner applied the DE 32 26 744 reference to Owen. According to the rejection of claim 8, the DE 32 26 744 reference “teaches [that] the examination of the detonating cords by a radioactive source is well known.”

The rejection of claim 8 further states that “[it would have been obvious to one of ordinary skill in the art to subject the package of Davis to X-ray examination as taught by DE 32 26 744 for the reason of determining whether or not the detonating cord has any flaws.”

However, the Applicants disagree with the Examiner’s characterization of the DE 32 26 744 reference. According to page 7 of the DE 32 26 744 reference, the paragraph which begins with the phrase “Gemäß Figur 1 wird bei einer Vorrichtung zur Prüfung” is translated as follows:

According to Figure 1, in order to test the filling density of a detonating cord, this cord 1 is unrolled from a feed drum or unwinding drum, specifically by

means of a drive roller 4. The cord 1 is guided to a take-up and wind-up drum 3 by way of guide rollers 5, 6, 7 and tensioning rollers 8, 9. The cord 1 is guided past a radioactive source 10, which is situated in front of the cord. If a defect occurs, the sensor that consists of the ionization chamber 11 transmits a signal, and the device is turned off. Subsequently, the defective cord part is removed.

Therefore, according to this disclosure in the DE 32 26 744 reference, the detonating cord 1 is unrolled from a feed drum, guided past a radioactive source 10, and subsequently wound back up onto a wind-up drum 3, by way of guide rollers 5, 6, 7 and tensioning rollers 8, 9. This is shown in Figure 1 of the DE 32 26 744 reference.

Independent claim 8, on the other hand, now expressly recites the feature (emphasis added) of “subjecting the detonating cord to X-ray examination in its packaging prior to shipping, without unwinding the detonating cord, thereby revealing when the detonating cord contains a defect.” Unlike the DE 32 26 744 reference, claim 8 expressly requires that the detonating cord be subjected to X-ray examination without unwinding the detonating cord.

In contrast, page 7 of the DE 32 26 744 reference expressly states (emphasis added) that “[a]ccording to Figure 1, in order to test the filling density of a detonating cord, this cord 1 is unrolled from a feed drum or unwinding drum, specifically by means of a drive roller 4.” Therefore, for this reason, the DE 32 26 744 reference should be withdrawn, and the rejection of claim 8 should be withdrawn.

For all of the above recited reasons, the rejection of claim 8 should be withdrawn. Moreover, the rejection of all of the claims that depend from claim 8, either directly or indirectly, should also be withdrawn, at the very least because these claims depend from an allowable independent claim 8.

The dependent claims are also allowable because they recite allowable features. For example, none of Owen, DE 32 26 744, or Yabe, either individually or

in combination, disclose, suggest, or otherwise render obvious the feature in claim 17 (emphasis added) of “wherein a last lap of the flat spiral is passed perpendicularly over the rest of the flat spiral.”

In the office action, the rejection of previously presented (currently cancelled) claim 17 stated that “it is not seen how ... the location of the last lap further limits the method of x-raying the package,” without referring to any of the cited references, and without alleging that any of the cited references discloses, suggests, or otherwise renders obvious the recited feature.

However, since the feature is affirmatively recited in the claim, when a 103 rejection is issued (as in this article), the rejection must be include prior art. The current rejection of claim 17 fails to meet this requirement.

For all of the above recited reasons, the rejection of claim 17 should be withdrawn.

EXAMINER INVITED TO TELEPHONE

The Examiner is herein invited to telephone the undersigned attorneys at the local Washington, D.C. area telephone number of 703/312-6600 for discussing any Examiner’s Amendments or other suggested actions for accelerating prosecution and moving the present application to allowance.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully submits that the claims listed above as presently being under consideration in the application are now in condition for allowance.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Antonelli, Terry, Stout & Kraus, LLP Deposit Account No. 01-2135 (Docket No. 306.45490X00), and please credit any excess fees to such deposit account.

Respectfully submitted,
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